

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A digital data storage system comprising:
 - a storage element, the storage element comprising a plurality of storage locations each configured to store a retrievable record;
 - a memory configured to store, associated with each storage location, a descriptor of data, each descriptor of data comprising a check value for the record stored in the respective storage location associated with the descriptor of data;
 - a cache memory comprising a plurality of cache slots; and
 - a control device configured to
 - i. initiate retrieval of a record ~~one of said records~~ in response to receipt of a retrieval request requesting retrieval of the record ~~one of said records~~ from one of the said storage locations, and,
 - ii. after the record ~~said one of said records~~ has been retrieved in response to the request, use the check value from the descriptor associated with the storage location identified in the retrieval request to verify that the record ~~one of said records~~ is from the ~~one of said~~ storage location ~~locations~~ identified in the retrieval request;
- the control device being configured to, after retrieving the record ~~said one of said records~~, selectively store the record in one of the cache slots and store a pointer ~~thereto~~ in the said descriptor of data, selective storage of the record being made such that a plurality of records from the same storage element are stored in the same cache slot;
- wherein the descriptor of data includes:
- a header section and a check value section;
 - wherein the header section includes information about the record stored in the respective storage location; and

wherein the check value section includes the check value for the record stored in the respective storage location associated with the descriptor of data.

2. (Currently Amended) A digital data storage system as defined in claim 1, the control device being further being configured to, if a record ~~one of said records~~ stored in one of ~~said~~ the storage locations is updated, generate a check value for the record ~~said one of said records~~ and store the check value in the descriptor of data associated with ~~said one of the said~~ storage locations.

3. (Currently Amended) A digital data storage system as defined in claim 1, in which the said control device is further configured to, if a record ~~one of said records~~ stored in one of the said cache slots is updated, generate a check value for ~~said~~ the record and store the check value in the descriptor of data associated with ~~said one of the said~~ storage locations.

4. (Currently Amended) A method of operating a digital data storage system, the digital data storage system comprising a storage element, the storage element comprising a plurality of storage locations each configured to store a retrievable record, and a memory configured to store, associated with each storage location, a descriptor of data, the descriptor of data comprising a check value for the record stored in the respective storage location associated with the descriptor of data, the digital data storage system further comprising a cache memory comprising a plurality of cache slots, the method comprising the steps of:

in response to a retrieval request requesting retrieval of a record from one of the said storage locations, initiating retrieving the said record; and

after retrieving ~~uthe~~ the said record, selectively storing the record in one of the cache slots and storing a pointer ~~thereto~~ in the said descriptor of data, the selective storage being made such that a plurality of records from the same storage element are stored in the same cache slot;

wherein the descriptor of data includes:

a header section and a check value section;

wherein the header section includes information about the record stored in the respective storage location; and

wherein the check value section includes the check value for the record stored in the respective storage location associated with the descriptor of data.

5. (Currently Amended) A method as defined in claim 4, further comprising the step of, if a record ~~said record~~ stored in one of the ~~said~~ storage locations is updated, generating a check value for ~~said~~ the record and storing the check value in the descriptor of data associated with ~~said~~ one of the ~~said~~ storage locations.

6. (Currently Amended) A method as defined in claim 4, ~~said method further~~ comprising the step ~~steps~~ of, if a record ~~one of said records~~ stored in one of the ~~said~~ cache slots is updated, generating a check value for the ~~said~~ record and storing the check value in the descriptor of data associated with ~~said~~ one of the ~~said~~ storage locations.

7-8. (Canceled)